IN THE CLAIMS:

The following is a complete listing of the claims, and replaces all earlier listings and all earlier versions.

1.   (Currently Amended) A method of performing discrete wavelet transformation on an image signal, comprising:

[[-]] a first step, of dividing the image into a plurality of first blocks each consisting of (W pixels by H pixels);

[[-]] a second step, of performing <u>a one-level forward</u> wavelet transformation on each of the first blocks to produce sub-frequency band blocks LL, LH, HL, and HH;

[[-]] a third step, of storing sub-frequency band blocks LL so as to produce second blocks having the same size as the first blocks and each consisting of sub-frequency band blocks LL <u>obtained in said second step from four of the first blocks</u>; and

[[-]] a fourth step, of performing <u>a one-level forward</u> wavelet transformation on the second blocks.

2.   (Currently Amended) A method according to claim 1, wherein the image is divided into a plurality of first groups each consisting of (n first blocks horizontally lined in the image by n first blocks vertically lined therein), and [[the]] <u>said</u> second to fourth steps are performed on each first group.

3.   (Currently Amended) A method according to claim 1, wherein: sub-frequency band blocks LL resulting from ~~wavelet transformation of the second blocks~~said fourth step are stored in units of the first group in order to produce third blocks having the same size as the first blocks; the third blocks are used as the first blocks and subjected to a one-level forward wavelet transformation; the image is divided into a plurality of second groups each consisting of (n first groups horizontally lined in the image by n first groups vertically lined therein); and production of the third blocks and wavelet transformation thereof are performed in units of the second group.

4.   (Original) A method according to claim 3, wherein grouping to be performed according to a required resolution level meets the condition that each of groups to be produced at an i resolution level should consist of (n groups produced at an (i-1) resolution level to be horizontally lined in the image by n groups produced thereat to be vertically lined therein).

5.   (Original) A method according to claim 4, wherein at the i resolution level, sub-frequency band blocks LL produced at the (i-1) resolution level are grouped in order to produce blocks having the same size as the first blocks, and the blocks are subjected to wavelet transformation.

6.   (Currently Amended) A method according to claim 1, wherein the size of the first blocks is [W+OW]*[H+OH), where OW ~~meets [2W+OP)²]where OP~~

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denotes the number of columns [[or]] <u>and OH the number of</u> rows shared by overlapping adjacent blocks.

7.   (Currently Amended) A method according to claim [[3]]<u>2</u>, wherein n denotes 2.

8. (Currently Amended) A storage device storing computer-usable instructions for causing a programmable processing apparatus to become operable to perform a method according to any of claims 1 to 7 <u>and 17</u>.

9. (Currently Amended) A storage product storing computer-usable instructions for causing a programmable processing apparatus to become operable to perform a method according to any of claims 1 to 7 <u>and 17</u>.

10. (Currently Amended) A signal conveying computer-usable instructions for causing a programmable processing apparatus to become operable to perform a method according to any of claims 1 to 7 <u>and 17</u>.

11. (Currently Amended) A scanner ~~being available~~ <u>implementing</u> a method according to any claims 1 to 6 <u>and 17</u>.

12. (Currently Amended) A copier machine ~~being available~~ <u>implementing</u> a method according to any claims 1 to 6 <u>and 17</u>.

13. (Currently Amended) A digital camera ~~being available~~ implementing a method according to any claims 1 to 6 and 17.

14. (Currently Amended) A device for performing block-based discrete wavelet transformation on an image signal, comprising:

[[-]] a controller for dividing the image into a plurality of first blocks each consisting of (W pixels by H pixels);

[[-]] a filtering circuit for performing a one-level forward wavelet transformation on each of the first blocks to produce sub-frequency band blocks LL, LH, HL, and HH; and

[[-]] a memory circuit in which sub-frequency band blocks LL are stored in order to produce second blocks having the same size as the first blocks and each consisting of sub-frequency band blocks LL,

[[-]] wherein said filtering circuit performs wavelet transformation on the second blocks.

15. (Currently Amended) A coding method including a method according to any claims 1 to 7 and 17.

16. (Currently Amended) A coding apparatus including ~~an apparatus~~ device according to [[a]] claim 13.

17.   (New) A method according to claim 4, wherein, within a group of a resolution level i, the groups produced at resolution level (i-1) are processed according to a zigzag scanning order.

18.   (New) A device according to claim 14, comprising a number of memory circuits of the same size as the first blocks equal to the number of required resolution levels, each of the memory circuits being adapted to store sub-frequency band coefficients LL.